

# STACKED THERMOCOUPLE STRUCTURE AND SENSING DEVICES FORMED THERE- WITH

## Abstract

A thermocouple structure capable of providing a more compact thermopile-based thermal sensor. The thermocouple structure has a stacked configuration that includes a plurality of first conductors on a surface, a dielectric layer on each of the first conductors, and a plurality of second conductors on the dielectric layer and formed of a different material than the first conductors. Each first conductor has first and second ends, and each second conductor has a first end overlying and contacting the first end of one of the first conductors, and a second end overlying but separated from the second end of the first conductor by the dielectric layer. A plurality of third conductors electrically interconnect one of the second ends of the second conductors with one of the second ends of the first conductors. Each third conductors is thicker than the second conductors to promote the robustness of the connection.